ROUGH DRAFT

To: Jerry W. Fielder
Director

October 22, 1971

From: David J. Bingham, Chief
Agricultural Chemicals and Feed

Subject: Clean Environment Act (Initiative Proposed by the People's Lobby) - Comments Pertaining to the Banning of Pesticides as Required by this Act

SUMMARY

The Clean Environment Act (CEA) imposes severe, and perhaps impractical, limitations affecting: gasoline quality components; air pollution standards, requirements, and enforcement; development of oil resources and nuclear power; and in effect bans certain chlorinated hydrocarbon and phenoxy pesticides.

The Act has been qualified by means of an initiative petition to appear on the ballot for voter approval or disapproval at the primary or general elections in June or November of 1972.

With respect to pesticides, the CEA declares that no person may manufacture, possess, buy, sell, import, deliver, or use any form of persistent chlorinated hydrocarbons specifically named in the CEA unless pursuant to a permit issued by the Director upon authorization by four-fifths of each House of the State Legislature. Persistent chlorinated hydrocarbons are listed as: Aldrin, DDT, DDD, BHC, chlordane, dieldrin, endrin, heptachlor, lindane, toxaphene, and phenoxy herbicides, including 2,4-D, 2,4,5-T, and silvex.

The CEA includes several provisions which may be unconstitutional. Specifically, these relate to conflict of interest (Sections 19 and 20) and interference with legislative processes (Sections 22 and 23).

Banning of groups of pesticides such as the persistent chlorinated hydrocarbons and phenoxy herbicides specified by this Act, would significantly affect (1) our food and fibre production, (2) pest control necessary for public health and safety, and (3) pest control in the urban environment.

Significant losses in the magnititude of millions of dollars annually would occur to the people of this State from crop damaging pests, lower crop yields, damage to dwellings and structures, fire losses in forests and to the water sheds, and increased costs of pest control.

(Expand to include information on essential uses to meet emergency pest, public health and environmental problems.)

POSITION STATEMENT

The California Department of Agriculture is strongly opposed to the proposed Clean Environment Act.

This measure proposes to solve California's environmental problems by imposing severe and, in many cases, impractical restrictions on a wide-range of the State's industry, including agriculture. The legal injunctions, mandates, penal sanctions, and civil penalties prescribed in the CEA would place an intolerable stress on many areas of State activity. The result is likely to be a considerable loss of production, jobs, and economic activity in general.

The Attorney General has estimated a two-hundred million dollar loss of revenue to California if the CEA is passed. The State's present fiscal position is unable to bear this additional burden.

Many essential State services important to public health, safety, welfare, and the production of food and fibre would have to be discontinued or substantially curtailed.

Nowhere in the CEA is there a statement of anticipated environmental benefits that would offset restrictions imposed by this proposal.

The answer to many of California's environmental problems lies in technological innovation and progress. The CEA, through its various provisions, would restrict technological advancements by hampering transportation, delaying development of new power sources and the banning of the use of certain chemical tools essential to our modern agriculture. The overall effect of the Act would be to severely cripple industrial and agricultural production, and it would not guarantee a relief from adverse pollution conditions in California.

We, in the Department of Agriculture, are opposed to the CEA and believe that the voters of this State should be advised to vote against it.

CALIFORNIA DEPARTMENT OF AGRICULTURE PESTICIDE POLICY STATEMENT

There is attached a pesticide policy statement in which it is noted that the Department of Agriculture promotes the proper and safe use of pesticides integrated with biological and cultural control methods to achieve acceptable levels of pest control with the least possible harm to non-target organisms and the environment as a whole.

It is the policy of this Department to reduce the use of pesticides to only those levels of essential need.

PESTICIDE USES IN CALIFORNIA

Agriculture:

Modern agriculture as practiced in California depends to a great extent upon the proper management of the biology of the environment to prevent loss of crops, in part or total, to insects, disease, or weeds. We know the importance of, and fully support, the natural biological restraints acting to control pests. We know, too, that the natural controls are not fully effective and that growers must resort when necessary to chemical pesticides to avoid unacceptable crop losses. The chlorinated hydrocarbons are particularly needed in seed protection and weed control.

(Include examples specifying scope of problem with respect to weeds, insects and other agricultural pest problems.)

Industry:

Many industrial processes depend upon pesticides for control of insects and/or fungi. Food processors must keep insects out of the factory to avoid food contamination; likewise, they must keep mildew and bacteria from the processing lines and out of the end product.

Industrial plants and lumber yards are dependent upon herbicides, such as the phenoxy hydrocarbons, for safety measures to prevent weed growth and reduce the fire hazard.

Forestry:

Phenoxy-type herbicides are essential to create fire breaks and to maintain fire control access roads at a reasonable cost in forest areas. Land clearing and brush control maintenance is an important program in recreational areas and in wildlife management.

Pine seed protection with endrin pesticides has been declared essential by forestry officials in reforestation projects.

Residential:

The only effective ant and termite control materials are the chlorinated hydrocarbons. Persistent materials are essential to the successful protection of wooden structures against termite damage. Likewise, certain of these materials are likely to be the pesticides of choice to protect against disease bearing rodents, nuisance pests, and lawns and ornamentals about the house.

The average California homeowner spends $172 annually to protect himself, his property against termites, ants, mosquitoes and various garden pests. Due to the residual qualities, the chlorinated hydrocarbon pesticides (aldrin, dieldrin, and chlordane) are the only effective materials for termite control.

For California homeowners, elimination of these chlorinated hydrocarbons would cause their annual cost of pest control to increase from $172 to $450 per household.

Switching to less effective, alternative pesticides may present a greater hazard to homeowners, their children, pets and beneficial insects. More frequent applications are likely to do greater harm to the environment than the few applications of persistent pesticides.

Public Health:

It is essential to maintain a full arsenal of pesticides to control the vectors (flies, mosquitoes, mice, bats, and other pests) of filth and disease. Banned pesticides would disappear from the market and would not be available in case of an epidemic or resurgence of pests.

MARKETING AND DEVELOPMENT OF PESTICIDES:

In general, we are for the essential regulatory control of pesticides and we are opposed to the outright ban of any useful beneficial agricultural tool, chemical or otherwise. The banning of a material will stifle rather than encourage the development of new products; a manufacturer will not risk several millions of dollars on the development of a new product if he sees a somewhat similar product arbitrarily banned from the market place.

Banning of products already on retailers' shelves and otherwise in distribution channels creates marketing havoc. Recall, removal, and proper destruction is very difficult for a manufacturer to accomplish and for regulatory authorities to monitor.

PERSISTENCE CONSIDERATION

Persistence, the resistance of a material to degradation, is a quality that has caused apprehension. This quality is desirable in structural termite control where long-term protection is needed. On the other hand, the rather slow degradation of DDT, together with widespread use and solubility in fat has resulted in its being detected in small amounts in plants and animals throughout the world. It is generally agreed that, except for essential needs to fight insect vectors of human and animal diseases, DDT production and use properly should be reduced and phased out.

The persistence in use of the named pesticides in the CEA varies from 10's of years for DDT-like materials down to the less significant period of four to six weeks for the phenoxy herbicide-2,4-D type of products.

The so-called "persistent chlorinated hydrocarbons" in general replaced inorganic chemical compounds composed of lead, arsenic, fluorine and other elemental materials which are not at all degradable.

TOXICITY CONSIDERATION

The acute toxicity of the named pesticides in the CEA varies from the highly toxic endrin to the moderately toxic 2,4-D. The latter being some one hundred times less toxic.

In spite of the fact that some of these products are extremely toxic, there have been very few deaths or injuries associated with their use; we know of none except in cases of suicide, carelessness or improper storage and handling.

Chronic toxicity to birds, evidenced by reports of soft-shelled eggs and decreased reproduction, has been attributed to low levels of DDT and DDD in their feed.

Fish in contaminated water will accumulate over the 5 ppm DDT and DDD tolerance levels and are subject to removal from the market.

Human beings, likewise, accumulate up to 10 or 12 ppm DDT and DDD in their fat on the average. These amounts, in the opinion of informed physicians and scientists, are not harmful.

REPLACEMENT MATERIALS

Replacement materials for chlorinated hydrocarbons include carbamate, organic phosphate and other types of pesticides. Because they are less persistent, more applications of these substitutes per season are frequently needed to maintain control of pests.

Total dosage of these products per acre usually will exceed that of the banned products. Frequently, too, they are much more costly and do more damage to predators and beneficial insects. Mite problems sometimes become very severe, and pollinating bees suffer damage.

A number of the organic phosphate pesticides are extremely toxic materials. They have caused, and are still causing, injury to careless applicators. Too, field workers exposed to small residues on foliage daily for a period of time have been made ill; reentry regulations had to be developed to afford field worker protection where some of these replacement pesticides were used.

PESTICIDE REGISTRATION AND USE REVIEW

It has been estimated by industry ~~and~~ that $18 million is spent in California for chlorinated hydrocarbon pesticides and herbicides used in agriculture. This compares with a total industry pesticide sale volume of $55 million at the manufacturer's level.

Insect and disease damage in California to crops has been estimated at $281 million and to animals at $3 million.

Last year (1970), 12,247 pesticide products were registered by the Department. Of this number, 5,724 (47%) contained chlorinated hydrocarbons. These products contain 1,048 pesticide chemicals of which 481 (46%) are chlorinated hydrocarbons.

Phenoxy-type herbicides are most essential for weed control in major agricultural crops in California. Of major importance is their need to prevent weed competition in small grain crops as there are no adequate substitutes. Also, there is no substitute for these herbicides for the control of brambles and brush in non-crop areas.

Crop losses in the first year of non-use of phenoxy herbicides is estimated at $150 million. As the incidence of weeds increase in agricultural plant~~s~~ area, annual crop losses would approach $500 million in three to four years.

Registered chlorinated hydrocarbon uses determined through systematic random sampling of the 1970 registrations are reported as follows;

1. Urban--- 36%

   Thirty-six percent of all chlorinated hydrocarbon registered uses pertain to control of pests in urban areas. This includes structural, industrial, household, and garden uses.

2. Public Health-- 26%

   Twenty-six percent of all chlorinated hydrocarbon registered uses pertain to public health. These products include sanitizing compounds, disinfectants, and pesticides used in preventing the spread of various insect and rodent-borne diseases such as bubonic plague, relapsing fever, malaria, and encephalitis.

3. Agricultural--- 38%

   Thirty-eight percent of all chlorinated hydrocarbon registered uses pertain to control pests in agriculture. These are broken down as follows:

   55% as insecticides and miticides
   25% as herbicides
   15% as fungicides
   5% as rodenticides, nematocides, and regulators

CHLORINATED HYDROCARBONS REPORTED USED IN CALIFORNIA

Chemical	1970 * Pounds	1971 ** Pounds
DDT	1,164,699	13,959
DDD	7,929	2,008
Aldrin	53,708	41,106
BHC and Lindane	18,352	7,851
Chlordane	661,318	291,665
Dieldrin	95,589	37,321
Endrin	12,916	10,205
Heptachlor	543	15
Toxaphene	2,659,273	317,190
Phenoxy herbicides:		
2,4,5-T	123,806	57,608
2,4-D	1,217,379	571,878
MCPA, MCPP, MCBA	271,059	280,833
Silvex	18,277	24,222
2,4-DP	17,012	637
2,4-DB	36,089	20,649
TOTAL	6,357,947	1,683,651

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* Includes one full year
** Includes first and second quarters only

Source: California Pesticide Use Report

CALIFORNIA DEPARTMENT OF AGRICULTURE

POSITION STATEMENT

PROPOSED CLEAN ENVIRONMENT ACT

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DWD:33/8

CALIFORNIA DEPARTMENT OF AGRICULTURE

PESTICIDE POLICY STATEMENT

The California Director of Agriculture recognizes that pest control, encompassing cultural, biological, and chemical methods, is essential for the production and processing of adequate supplies of food and fiber and in the protection of man and his environment from harmful insects, weeds, rodents, and other organisms detrimental to health and safety.

The Department promotes the concept of supervised pest management, stressing use of both biological and cultural control methods blended with selective pesticides to achieve acceptable levels of control with the least possible harm to nontarget organisms and to the environment as a whole.

This concept includes the reduction of the use of pesticides to only those levels of essential need.

Briefly stated, the Department's goal is (1) to promote and assure safe, practical, efficient, and economical methods of pest control; and (2) to assure that pest control methods are used safely and in the best interests of man and his environment.

"Environment" is defined as man's total physical and biological surroundings, natural and man-made, including air, water, soil, plants, wildlife, and other ecological factors affecting growth and development of living organisms.

Specifically, it is the Director's policy to control and regulate pesticides so as to:

(a) provide for proper, safe, and efficient use of pesticides essential for production of food and fiber and for protection of the public health and safety;

(b) protect the environment by prohibiting or restricting uses of environmentally harmful pesticides;

(c) promote safe working conditions for agricultural and pest control workers where pesticides are present;

(d) permit agricultural pest control under strict control of the Director and the County Agricultural Commissioners; and

(e) assure users that pesticides are properly labeled and are appropriate for the use designated by the label.

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